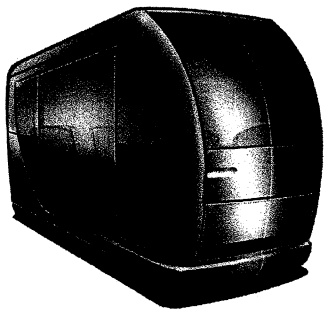
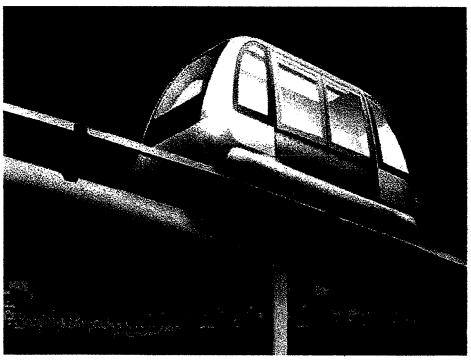
non-friction braking. Current designs use on-board switch mechanisms to choose between guideways or allow the vehicle to turn off the main guideway onto a station siding. These simple, foolproof switches are unique to this transit mode, and allow PRT the flexibility to negotiate short radius turns and complicated guideway routings – unlike, for example, a monorail which is relegated to a simple, inflexible linear route or single closed loop (as Disneyland's Monorail attraction is designed). Fewer moving parts also cause the vehicle to be very quiet and highly reliable in operation.

Other points are key to PRT design and use:



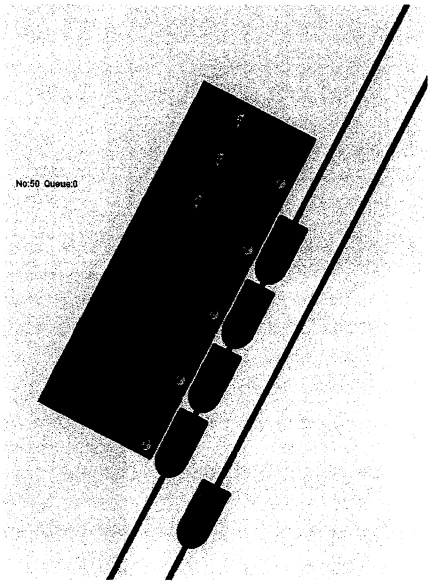
- Small, lightweight vehicles do not require massive guideway structures as would elevated LRT or monorail. Support pylons are approximately two-feet in diameter and single guideway may be as narrow as one meter.
- Offline stations dramatically increase throughput. By not stopping at every station between departure and destination, a PRT vehicle's average speed is also then its top speed. Above grade, without interference from surface traffic and having no need for street traffic signaling, speeds of 30-40 mph can be achieved, non-stop. This means minimal actual transit time for riders and far greater efficiencies with vehicle resources, making them available much more quickly for additional users.
- Secure Internet-based wireless connections between vehicles, stations and human supervisors mean onboard audio and video are feasible for rider interaction and security, and that immediate notification of trouble can be sent directly to local law enforcement. Onboard and station video minimizes vandalism and petty crime, especially as the system will usually know the rider's name per their recorded fare payment data.
- Offline station design means *any number* of stations can be added to the grid with NO decrease in throughput – vehicles bypass stations for which they're not destined as all rides are non-stop. This also means much lower ride times compared to LRT which makes all station stops on its linear route, and local buses which make multiple rider-requested stops, and are subject to traffic controls and congestion delays. Unlike LRT, monorail and bus systems, adding PRT station stops increases service levels, flexibility, performance, financial appeal and overall usability.



- Small PRT stations can accommodate individual buildings, strip malls and intersections; larger stations accommodate multiple, simultaneous vehicle loading/unloading.
- As the PRT grid grows, multiple paths to destinations develop, allowing computer routing around least congested segments that will be faster, shorter or are out of service for maintenance or unpowered. In a power outage, vehicles are programmed to reach the closest available station using onboard batteries.
- Even in small inter-connected loops, PRT is useful for transit in a distinct area, e.g. a Hyatt ↔ Downtown circulator. Unlike OCTA's 2003 CenterLine light rail project, PRT doesn't require an "all in" commitment to be valuable and can be built incrementally larger as funding is identified. PRT would work well as a municipal or regional system, and as well operate on a college or business campus (e.g. Boeing).
- PRT would prove reasonable in two areas that concern transit authorities and the general public; transport for schools and the elderly/mobility-challenged (which OCTA's Access system now expensively serves). PRT stations built at school sites would decrease transport time and costs for students, staff and faculty, and also then becomes an access point in a certain residential

neighborhoods. PRT will be ADA-compliant for the handicapped, readily providing transport to shopping and medical facilities.

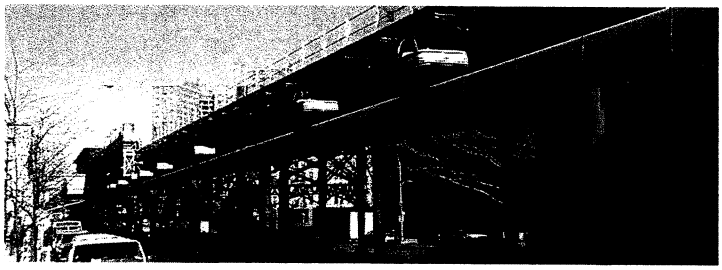
- Except for its onboard computer, an empty PRT vehicle need not consume any power.
- Within the contiguous guideway grid, no vehicle or route transfers are necessary.
- Every PRT rider is guaranteed a seat as no standing is feasible within the vehicle.
- All vehicles must accommodate wheelchairs and bicycles; therefore 100% of the PRT fleet serves all users. No segregation of vehicles is necessary for special needs.
- Non-scheduled services mean no missed rides. When sufficient vehicles are available for anticipated needs, contrary to the commonly accepted mass transit model, riders need not wait for service and can board vehicles that are already waiting at stations. Crowds do not form if sufficient vehicles are available, therefore no waiting is necessary.



- No route maps or schedules are required published for a PRT system. Route maps will be posted at portals for station selection and would be publicized on a system website. In certain situations, reserving a vehicle or summoning one via cellular telephone may be possible
- Like sports stadiums, PRT station names might be sold or licensed for ongoing revenue where they're not built by a private owner.
- With direct, point-to-point rides, missed stops due to a rider's sleeping or inattention are impossible.
- Unclean or vandalized vehicles may be rejected by riders at the station portals. These vehicles are then dispatched for maintenance at a system facility.
- In-vehicle and in-station video monitoring will identify vandals for interception by law enforcement. As rides are paid by an issued pass or credit/debit card, vandals are potentially apprehended via payment data or pass identification. Video evidence of an incident is stored for access by law enforcement or judicial authorities. [Note that all new OCTA buses are equipped with multiple internal and external video cameras feeding an onboard recorder to deal with real and staged incidents.]
- With emphasis toward the use of credit/debit plastic, and pre-sold passes ("rechargeable" via an Internet account as online postage and toll roads are handled now), cash handling on the system is minimized, but still accommodated via station kiosks accepting currency. Standalone stations large enough to rent space to ground-floor businesses could as well accommodate ATMs.
- Individual vehicles might be branded for advertising revenue, but it's unlikely that a similar practice would be acceptable for the fixed guideway. However, the layering of photovoltaic (solar) panels on guideway surfaces is feasible for revenue generation from electricity created and fed into the local Southern California Edison grid per their existing solar programs.

- Trips are charged by the vehicle, like a taxi, not on a per person basis as multiple riders are not easily segregated. This encourages vehicle sharing and car pool-like use to single destinations.
- Employer participation programs based on PRT usage are very feasible, encouraging off-site facility parking where available.

Conventional thinking and experience often *assumes* that PRT does not compare to light rail or buses in passenger carrying capacity. These assumptions fail to consider that PRT vehicles operate in quantities that are dependent only on the funding to acquire them. Without drivers, as many as can be placed on the guideway are put into use to achieve the average speeds discussed here. Unlike buses or LRT, except for maintenance and cleaning, PRT vehicles are always ready at system stations and not parked in a depot facility.



Computer control will allow vehicle headways of four seconds or less, causing very high vehicle density on the guideways. As average speeds are far greater than buses or LRT can achieve, vehicle resources are therefore more productive, carrying as many or more riders than conventional transit in shorter trip times. No time is lost to surface traffic situations. Operations are then very predictable and can be precisely planned for peak hour situations – for example, a usage database will be quickly accumulated to track boardings/deboardings at all station portals. Those stations requiring more vehicles than others during "rush hour" can then have vehicles accumulated at them as the control computers balance loads according to user preferences and ridership. Special situations are also served – when events are scheduled, vehicles can be accumulated at the appropriate stations to accommodate "surge" loads. This is infeasible for LRT and, if available, requires buses and drivers to be specially assigned.

PRT can also accommodate increasing demand by simply building additional guideway along other routings to provide more paths. Since elevated guideway is less subject to difficult right-of-way acquisition than light rail, it's more easily, quickly and far less expensively built. PRT is also more forgiving if it's ever built where it shouldn't be – if politically undesirable, or ridership estimates don't materialize, unlike LRT or monorail it can be removed and its guideway and vehicles simply re-used elsewhere.

Certain PRT vendors offer "sawtooth" (diagonal) vehicle parking at stations. This saves space, increases throughput and especially allows vehicle segregation. A private vehicle can then wait for its passenger without effecting or slowing regular public operations, or different sized or purposed (e.g. mail, parcel delivery, supply, baggage carrying) vehicles can be mixed on the system.

There are two principal layouts for PRT stations – linear and sawtooth.

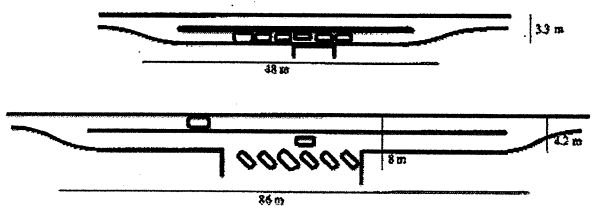


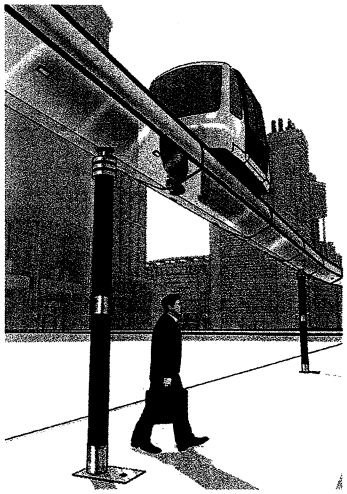
Fig. Alternative station layouts dimensioned for six vehicles.

Most systems are planned for linear stations in which vehicles advance on one station track. In order to save station space it is recommended to use the same (two in the figure) positions for alighting and boarding passengers. Vehicles depart as soon as passengers are ready and new vehicles advance from waiting positions to the platform.

VECTUS

PRT manufacturers state costs in very broad terms, but with its lightweight guideway structure and small vehicles, any estimate will find PRT FAR less expensive than light rail. Our highest estimates find single guideway PRT being constructed for $20-30 million/mile, and even less on undemanding terrain. By comparison, costs for OCTA's CenterLine light rail system were to be $125 million/mile in 2003 dollars.

AN ELEVATED SOLUTION



With traffic and congestion steadily growing in the area and *no* realistic opportunities or funding to widen existing arterials or add new freeways, building above grade will have the least impact. As described above, the grid layout of the arterials also suggests that linear solutions like LRT are undesirable if more flexible technology could be identified. These major arterials are also lined with businesses which *desire* commuter and visitor traffic compared to residential neighborhoods which *shun* it.

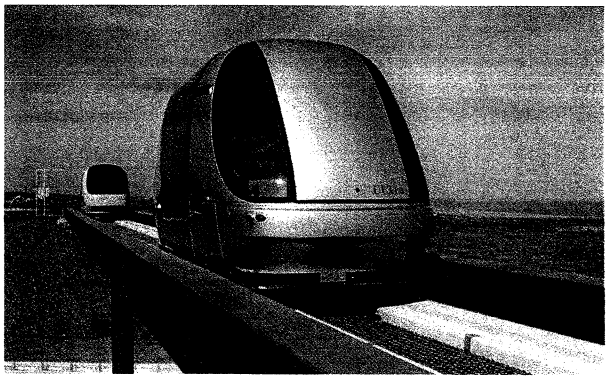
To use Beach Blvd., the River and any other north-south or east-west arterials, an elevated solution is most easily built as existing right-of-way can be utilized (using the shoulders, sidewalks and medians of the street infrastructure itself). Simply put, elevating transit occupies a free, unused dimension AND eliminates potential interactions with automobiles, bicyclists and pedestrians. The arterial street grid is appreciated for its efficiency, but unfortunately it's also known for high average vehicle speeds and occasionally serious and sometimes fatal accidents. An at-grade solution on the grid simply exacerbates these situations, but PRT avoids them and requires no conventional traffic controls.

An elevated solution would prove a must for using the River as well. A number of arterials need to be crossed, and accessibility to guideways needs to be prevented by vandals, the immature, the simply curious and those with nefarious intentions. Elevated solutions are safer, more secure and controlled.

AN ENVIRONMENTALLY FRIENDLY SOLUTION

While OCTA has contributed to enhanced air quality with its low-emission CNG bus fleet and Toyota hybrid staff vehicles, an electrically-powered solution would be even more appropriate given public and press awareness of climate change, peak oil and carbon footprint issues. The previous Mayor of Huntington Beach is also a well known environmentalist and often speaks to these issues in her role with the Southern California Association of Governments. She's also been a PRT proponent, having spoken this year to an industry conference in Ithaca, NY. Any solution which can support or utilize alternative energy sources, like solar power, should be favorably evaluated for this opportunity. Noted above, any PRT guideway, where cost-justified, is potentially mounted with solar panels for the generation of electricity back into the Edison grid, offsetting that that it uses and creating an everyday revenue stream for the system.

A SOLUTION APPEALING TO THE NON-TRANSIT DEPENDENT

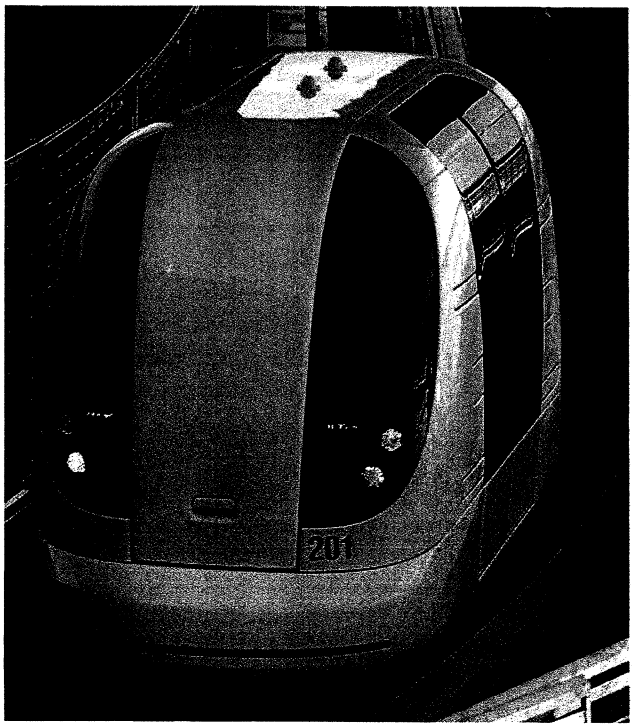


Surveyed this year, OCTA system ridership is 2/3rds Hispanic, and is acknowledged to support a transit-dependent user base. We believe a middle-class demographic, typical of the City's population and the in- and out-of-state tourists it seeks to attract, would use a transit system based on a different model – one which mimics private transport, i.e. a taxicab, where a reasonably priced ride needn't be shared, and performance was equivalent to or better than a private automobile.

SHARING EXISTING INFRASTRUCTURE

Orange County is criss-crossed with over 230 miles of flood control channels. The Santa Ana River is the most obvious of them, and with its flat, wide street-level berms on both edges, it is ideal to build PRT guideways upon, outside the existing (and precedent-setting) OCTA bike paths. Multiple guideways

could easily be accommodated, and the street and bridge crossings that intersect the River become good opportunities for building stations. For the City's plans in the Edison right-of-way along the River between Adams Ave. and Pacific Coast Highway, PRT could be the means for moving users of the planned Santa Ana River Parkway.



Any flood channel could support at least a single elevated PRT guideway running along side it. Stations are also potentially located where channels intersect surface streets. In these examples, it's also recognized that significant NIMBY resistance might be expected.

It is also conceivable that PRT could be operating in freeway medians and along shoulders if sufficient space can be acquired. Advantaging the diminutive design of PRT vehicles, where a guideway must cross a multi-lane freeway, there's good potential for routing it and the vehicle *below* the freeway lanes in the void alongside sidewalks as illustrated in our PowerPoint presentation.

PRT guideway offers other potential. Given its elevated infrastructure, the concealment of electrical, telephone and/or CATV cabling might be engineered, replacing exposed pole and cable systems along arterials. Municipal WiFi might be mounted along the guideway for revenue generation to the City.

PRT Strategies

714.531.7076
www.prtstrategies.com

December 19, 2008

Ms. Rosemary Medel
Associate Planner
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

Dear Ms. Medel:

Please accept this letter and its attachments as comments to your Beach Boulevard/Edinger Avenue Draft Specific Plan. We are a local consultancy which has conducted significant research into alternative transportation systems to enhance public transit usage for commuters and tourists in Orange County.

We noted that Freedman Tung and Bottomley accomplished a very credible review of future development potential in the Beach/Edinger corridors. They are to be congratulated for such a thorough job; however, we also noted there was little said about transit and congestion issues along these two highly trafficked arterials. We'd wish to offer three enhancements to the FTB plan in context with a recommendation that the City consider the attached as an opportunity to pioneer the development of a high-tech public transit system to be used by the middle-class demographic you wish to draw and accommodate in the corridors as tourists, local workers and retail shoppers. Unlike the ordinary OCTA bus system which only services the transit-dependent on both streets, **Personal Rapid Transit (PRT)** is attractive to middle-class users as the fully computerized transit it offers is analogous to a taxi ride – private, point-to-point, safe and fast.

Elevated PRT stations placed within both corridors can be publically or privately owned, and will accommodate wheelchairs and bicycles. PRT is very environmentally friendly as it's electrically powered, virtually noiseless and emission-free. We've included our specific technical recommendations for PRT in a separately attached document.

1) Advocate Transit Oriented Development (TOD)

A comprehensively planned transit system will create significant opportunities for development *and* redevelopment in the corridors. Since NO form of at-grade conventional transit, e.g. light rail or bus rapid transit, is adaptable to these corridors, the City can implement PRT for both, with additional extensions to deal with the opportunities we discuss below and in the PowerPoint. PRT can create a City-oriented grid network, linking Bella Terra through Five Points to the Downtown – a transit system focused on the middle-class demographic which does not ride the OCTA bus routes which serve the corridors.

PRT would ***SEED*** development in the corridors where stations can strategically placed to attract businesses or serve workplaces. E.g., consider certain intersections which have less than desirable retail situations – a proactive planning approach would create a PRT station at these locations which then attracts more desirable business, or a redevelopment as commuter/tourist traffic is able to reach the site. PRT along both arterials ***captures the commuter/tourist element in the corridors***, allowing them to park at only one location and then transit anywhere from the beach to Bella Terra just as one would use a ***horizontal elevator***.

TOD thrives where these components are provided:

- Walkable design (1/4 mile station radius) with the pedestrian as the highest priority
- Station nodes proximate to a mixture of uses, e.g. office, residential, retail, and civic
- High density, high-quality development within 10-minute walk to/from station
- Other transit system nodes including buses and trains
- Support for bicycles
- Retailers who embrace and incent transit users, e.g. with discounts, coupons
- Tax credits, zoning considerations where infrastructure is privately developed

Public/Private Partnerships (PPP)

TOD leverages significant opportunity for PPPs. Conventional bus transit systems operating (at deficits) in the County today are government owned and run, with no opportunity, need or reason for private investment. A City PRT network creates multiple opportunities to partly fund the system and support operating costs where developers and hoteliers create desirable station portals and generate passenger traffic:

- PRT station portals can be constructed by a property owner, in either standalone configurations or built *into* existing structures, creating retail traffic to the location. In another example, a hotel could fund and build a station for the use of its own guests and visitors.
- PRT vehicles can be purchased or leased and uniquely configured and branded for private operation. Using the hotel example, their own vehicles could be moving their guests to/from local attractions, shopping and the airport if the guideway was extended to it.
- PRT station portals on public property create focused opportunities, drawing tourists and visitors to the location to reach nearby businesses or work places, or cause them to be built as customers and workers can be delivered to the site.

2) Support High-Density Housing

With your City Council's recent approvals of very high-density housing west of the Bella Terra Center, the implementation of PRT in the area could significantly reduce traffic and congestion if this *horizontal elevator* were used to connect apartment dwellers and condominium owners to local retailers and attractions, local employment, the beach and as suggested below, other transit nodes like Metrolink. The City is allowing much higher residential densities in the Edinger/Gothard area which will create additional traffic and cause grander needs for parking. OCTA's transit connections in the area are limited to only ordinary bus routes at the Golden West transportation hub some distance from the Ripcurl, Village and Murdy Commons developments. Said above, we're also skeptical that these buses are suitable for use by the demographic expected to be renting or buying in the neighborhood, or shopping at Bella Terra.

Public/Private Partnerships

The housing designed for the area is nearly perfect for PRT, especially where station portals might be built *into* structures for private access to/from the building or into nearby parking structures:

- Providing acceptable transit for these tenants and owners potentially reduces on-site parking requirements. For example, the developer might be encouraged to build more revenue-producing space versus parking if zoning was relaxed for less automobile space where transit was substituted.
- Increases in floor space, and therefore, apartment or condo unit value, eventually translate to increases in assessments and property tax revenue. Discussed below, a PRT connection could also be made to the Buena Park Metrolink station, funded by Measure M, then linking professionals and white collar workers these developments will attract into Los Angeles. We'd anticipate a direct, non-stop PRT ride to Buena Park would require only 15-20 minutes, in commute hours with no vehicle parking then needed.
- The availability of the private, non-stop rides unique to PRT will increases property values by increasing the attractiveness of building and unit. As suggested above, here again is an opportunity for private investment in a transit system which produces benefit for both public and private sector interests as resale values are enhanced and tax revenues increased.
- We also see the strong potential of extending the PRT grid west to the Boeing facility at Bolsa St. It's assumed that Boeing workers would be attracted to the Bella Terra housing, especially if a fast, direct transit system was available. Neither is it a "stretch" to envision PRT as a campus connector system on the nearly mile square Boeing property.

3) Attract Tourists and Conventioneers from the Anaheim & Disney Resorts

Huntington Beach has a unique opportunity to exploit PRT to connect its beach attractions, Downtown and Pier area to tap over 27 million tourists and convention attendees who annually visit Orange County and the City of Anaheim. A number of alignments can be designed to reach both named Resorts areas (most importantly, their 100+ hotels where their Visitors Bureau believes stays will be extended if an additional day might be spent in HB). Per the attached PowerPoints, we see the potential of using the Santa Ana River (already an OCTA-controlled bike path route) to directly link Anaheim's planned ARTIC (Anaheim Regional Transportation Intermodal Center, see www.articinfo.com) facility to the Hyatt and Hilton Hotels, the Pacific City and Strand development and the Downtown merchants and restaurants. If PRT proves as successful as we know it will be, other routings to Anaheim (e.g. Beach+Katella, Edinger+Harbor) are feasible as well, using the existing arterial grid.

Public/Private Partnerships

HB's world-class beach and area attractions draw over 13 million visitors annually – to *increase* this visitation *without* additional vehicle traffic and provision of parking:

- Other than very expensive taxi trips and rental cars (easily $50-100/round trip), no public conveyance exists which allows Anaheim's visitors to transit to other areas of interest in the County. PRT along the River could deliver groups of up to six riders/vehicle from ARTIC to HB in approximately 15 minutes, for an estimated fare of less than $10. It's not at all expected these same visitors would use the public bus system to visit the beach area.
- Discussed above, the four to five beach area hotels, especially including the Hilton and Hyatt, could be moving guests directly to/from Disneyland, the Convention Center and/or Honda Center using public or private PRT vehicles. Private vehicles are computer-segregated from the public fleet, anticipated to be more luxurious and summoned for a return trip by cell phone text message, room passkey or private code.
- Retailers and restaurateurs could readily advertise PRT rides to attract customers to their venues, perhaps subsidizing the transit or discounting their offerings to attract these visitors from their hotels. Hotels are very skilled at this sort of marketing.
- It's conceivable that a wide area PRT grid could also reach John Wayne Airport, creating the means to bring hotel guests in from the airport and returning them. Manned hotel shuttles are then unneeded for this costly service. Baggage is easily accommodated in the PRT vehicle, or sent via a handler in a separate vehicle. As it's driverless and completely automated, PRT also operates 24/7 with services then available during all hours of airport operation.
- Newport Beach and Costa Mesa's South Coast Plaza have been unwilling to consider PRT – HB could exclusively implement it for major competitive advantage. Bella Terra is reachable from anywhere on Beach Blvd. and could be made particularly attractive to Downtown hotel guests.
- The River routing strategy above also touches Fountain Valley's Costco store, a popular attraction for foreign hotel visitors. As well, Fry's Electronics is nearby and an example where the two cities might collaborate on system routing and some level of cooperation and revenue sharing might occur between the Chambers of Commerce. The proximity of the Westminster Mall is a similar example as it's easily reached with a PRT guideway extension from Edinger.
- Like the Anaheim hotels, we suspect the beach hotels have difficulty in attracting service staff given the commuting distance and parking requirements. As PRT proliferates, fast 24/7/365 transit opportunities are created for this support staff to reach these work places.

FUNDING PRT

It is unlikely that the City has uncommitted infrastructure money to finance a PRT implementation as ambitious as that proposed here, but it's also very encouraging that other resources exist to explore for funding:

Orange County Transportation Authority (OCTA)

OCTA's Measure M transportation tax brochure boldly states "fresh thinking will be awarded". Renewed in 2006 for a 2010-2040 term, Measure M (aka M2) supports opportunities to fund potentially large PRT implementations. OCTA is supporting its Metrolink expansion strategy with two M2 Projects to encourage the development of "connector" systems to its stations. Geographically, Huntington Beach is miles distant from Metrolink's dozen stations. It's acknowledged that the expense, travel time required and inconvenience in reaching the closest stations cause Metrolink to be unattractive for HB commuters since too much time is required to reach their constrained parking by car, particularly during peak hours, and no fast and demographically-attractive public transit is available. Metrolink is also too distant to create opportunities for drawing visitors and tourists to the beach, the Downtown, the hotels and shopping opportunities.

In the attached, we've documented THREE opportunities for PRT to connect to the:

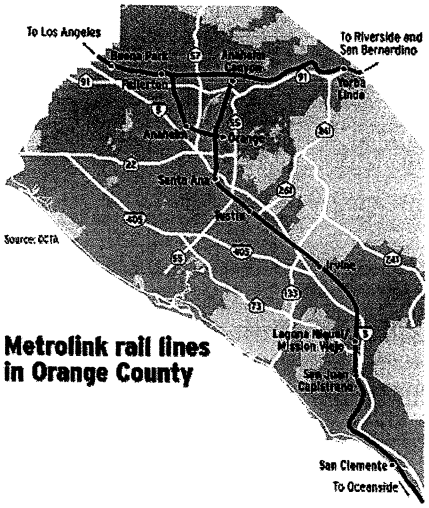
- Anaheim Station (to redevelop into ARTIC) via the Santa Ana River
- Santa Ana Station via the River or Edinger+Fairview, eastward along the Pacific Electric Right-of-Way through the Civic Center (a major employment center and common destination for area residents)
- Buena Park Station north along Beach Blvd. through Westminster, Stanton, Anaheim and Buena Park, all cities which would benefit from a PRT alignment servicing their retail businesses and work places

From OCTA's website, nearly $1.3 billion may be available to construct PRT in available public right-of-ways *and* the County flood channels. We believe the City can approach the Authority (consider also that HB's Mayor Pro Tem and the 2nd District County Supervisor are OCTA Board members) and successfully be allocated funding from both these M2 "Projects" (text extracted from www.octa.net, bold emphasis ours):

Project S: High Frequency Metrolink Service

Description: Frequent service in the Metrolink corridor provides a high capacity transit system linking communities within the central core of Orange County. This project will establish a competitive program for local jurisdictions to broaden the reach of the rail system to other activity centers and communities. Proposal for extensions must be developed and supported by local jurisdictions and will be evaluated against well-defined and well-known criteria as follows:

- Traffic congestion relief
- Project readiness, with priority given to projects that can be implemented within the first five years of the Plan
- Local funding commitments and the availability of right-of-way
- Proven ability to attract other financial partners, both public and private
- Cost-effectiveness
- Proximity to jobs and population centers
- Regional as well as local benefits
- Ease and simplicity of connections
- Compatible, approved land uses
- Safe and modern technology
- A sound, long-term operating plan



This project shall not be used to fund transit routes that are not directly connected to or that would be redundant to the core rail service on the Metrolink corridor. The **emphasis shall be on expanding access to the core rail system and on establishing connections to communities and major activity centers that are not immediately adjacent to the Metrolink corridor.** It is intended that multiple transit projects be funded through a competitive process and no single project may be awarded all of the funds under this program.

These connections may include a variety of transit technologies such as conventional bus, bus rapid transit or high capacity rail transit systems as long as they can be fully integrated and provide seamless transition for the users.

Cost: The estimated cost to implement this program over thirty years is $1,000.0 million.

Project V: Community Based Transit/Circulators

Description: This project will **establish a competitive program for local jurisdictions to develop local bus transit services such as community based circulators, shuttles and bus trolleys that complement regional bus and rail services**, and meet needs in areas not adequately served by regional transit. Projects will need to meet performance criteria for ridership, connection to bus and rail services, and financial viability to be considered for funding. **All projects must be competitively bid, and they cannot duplicate or compete with existing transit services.**

Cost: The estimated cost of this project is $226.5 million.

Clearly, there are opportunities above to fund PRT with significant M2 funding which, to our knowledge, is not committed elsewhere. Further, "Project T" should also be evaluated for its funding potential.

Federal and State Programs

Federal funds can be pursued via various programs, e.g. Small Starts, Smart Starts and New Starts. Congressman Rohrabacher's office (located at Main Street and Pacific Coast Highway, HB) is familiar to our firm and can be asked to assist in pursuit of this federal money.

State Senator Harman (former HB Councilman and Mayor) sits on the State Senate Transportation Committee and can be requested to assist in pursuit of funds from the recently passed $40 billion State Infrastructure Bonds and other potential sources.

Public/Private Partnerships

We've strongly emphasized above that private sector investment is important and believed attainable via our recommendations. Taking a "stakeholder" positions commits local apartment/condominium/office developers, hoteliers and retailers to partly own the system, exploit and encourage its use. The four major medical facilities in the corridors should also be invited to participate as PRT is an excellent transport for their clientele.

Private investment in PRT is in property – that is, actually building a two-story station on a parking lot or a portal into a building structure. The retailer (and especially "big box" operations like Wal-Mart and Target, both vital Beach Blvd. operations) benefit from direct customer access without need to support additional parking. For their size, Bella Terra and Five Points could support multiple stations above their parking lots, connected to parking structures and/or directly accessible to the second floors (or first or second story roofs) of their retailers.

Hoteliers as stakeholders are discussed above, and in Huntington Beach it's obvious and important to note that the Hyatt, Hilton and the three other new beach operations are unique for their locations – of high value and price due to proximity with a world-class surfing beach, but remote from anywhere else in the County where their guests may wish to visit or from which they wish to draw. PRT along Beach Blvd. allows their high net worth clientele access to Bella Terra shopping and dozens of restaurants and entertainment venues via a private conveyance. PRT for the hotels would

also serve as a local circulator to move their guests to/from the downtown area – a somewhat lengthy walk, and an inconvenient one in less than perfect weather.
Supermarkets may also be candidates for PRT portals. And, after proven successful, PRT can act to attract additional businesses to the City – for example, a recent controversy caused a Costco to not build an HB store, but other properties suitable for them would be made more attractive if PRT guide-way could be extended to accommodate their needs. Further, the potential use of the many miles of flood control channels in the area should not be ignored as right-of-ways for guideway. Maps are included in the attached material which illustrate a number of channels which might be used where guideway pylons could be imbedded alongside the water channel. These channels are unused for anything but emergency water runoff, and operating in them where visual intrusion is not an issue could cause their upgrade as well. These underused resources are under County and City control, and Huntington Beach has miles of them.

Note that we've also included a slide in our PowerPoint re. the use of PRT for goods movement. A PRT vehicle is perfectly sized for moving a ½-ton pallet of material. This suggests freight-focused applications for potentially supplying certain businesses – where the guideway can be built to or accessed by a distribution point, certain businesses, e.g. supermarkets and "big box" retailers might substitute some of their shipping with PRT versus UPS or FedEx or their own truck traffic. This might be especially applicable to the U.S. Postal Service as well considering the distributive nature of their business.

SUMMARY

Rosemary, we believe we've presented a very credible argument here for Personal Rapid Transit to be taken seriously by Huntington Beach. Employing PRT for these various applications could dramatically enhance the value of the Beach/Edinger corridors and encourage faster re-development of both arterials with new businesses and work places. We've also offered three funding strategies, the largest being real and Orange County-specific under the direct control of local politicians with direct links in the City.

With PRT, Huntington Beach would also be seen a leader in the environmental area by employing a **GREEN**, non-emitting state-of-the-art transit system to reduce traffic congestion and lessen dependency on the automobile for short trips.

We'd appreciate the opportunity to present these ideas to your planning group, FTB, the City Council, Chamber of Commerce and Downtown BID. We'd appreciate your feedback after New Year's and would be happy to answer any questions you might have it you'd please contact me directly. Thanks for the opportunity to provide our comments to the Beach/Edinger Draft Specific Plan.

Best regards,

Roy Reynolds
Managing Director
PRT Strategies

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Fountain Valley, CA 92708

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Office: 714.531.7076
Cell: 714.206.3878

cc: Mr. Fred Wilson, City Administrator, Huntington Beach
Mr. Michael Freedman, Principal, Freedman Tung and Bottomley
Mr. Mike Grumet, Chairman, HB Chamber of Commerce
Ms. Connie Pedenko, HB Downtown BID
Mr. Steve Bone, HB Conference and Visitor's Bureau

February 3, 2009

Ms. Kellee Fritzal
Deputy Director, Economic Development Dept.
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

Dear Ms. Fritzal:

Per my conversation last week with Rosemary Medel, she suggested I share the enclosed with you. Some time ago, I met with your Department staff to discuss the potential of Personal Rapid Transit (PRT) for Huntington Beach. The enclosed is updated and goes into much greater detail on

- PRT as a collector/distributor system operating along the Santa Ana River to potentially tap 27+ million annual tourists visiting the Anaheim and Disney Resorts, bringing them *sans* automobiles to your beach attractions, hotels and the Downtown BID.
- Creating Transit Oriented Development opportunities in the Beach and Edinger corridors, fostering retail development at those locations identified by the Freedman study by creating PRT stations where new or upgraded businesses can be made to thrive.
- Reducing traffic and congestion, and mitigating beach parking issues, by creating opportunities to reach your local businesses, employers and the Metrolink with a non-polluting electrified state-of-the-art transit system that eliminates the need for automobile commuting.

In our material, we thoroughly cover the funding opportunities that locally exist to build this system. We believe your Council and Planning Commission could be interested in this **if it were supported by your Department and the local business community**. We know the BID is looking for direction from the City. In addition to our response to Rosemary re. the Beach/Edinger study, we also intend offer similar commentary to the Downtown Specific Plan.

PRT is viable now, has been proven in revenue service and has been declared "ready for primetime" by the City of San Jose. Our most promising vendor has recently been safety-certified by the Swedish Rail Authority and is working with my firm to explore opportunities in the United States. We have recently approached the City of Anaheim and Disney for consideration as an alternative for a collector/distributor system in their Resort areas.

I'd appreciate the opportunity to meet with you to go over this material in detail and will be in contact next week. Thanks for your consideration and interest.

Best regards,

Roy Reynolds
Managing Director
PRT Strategies

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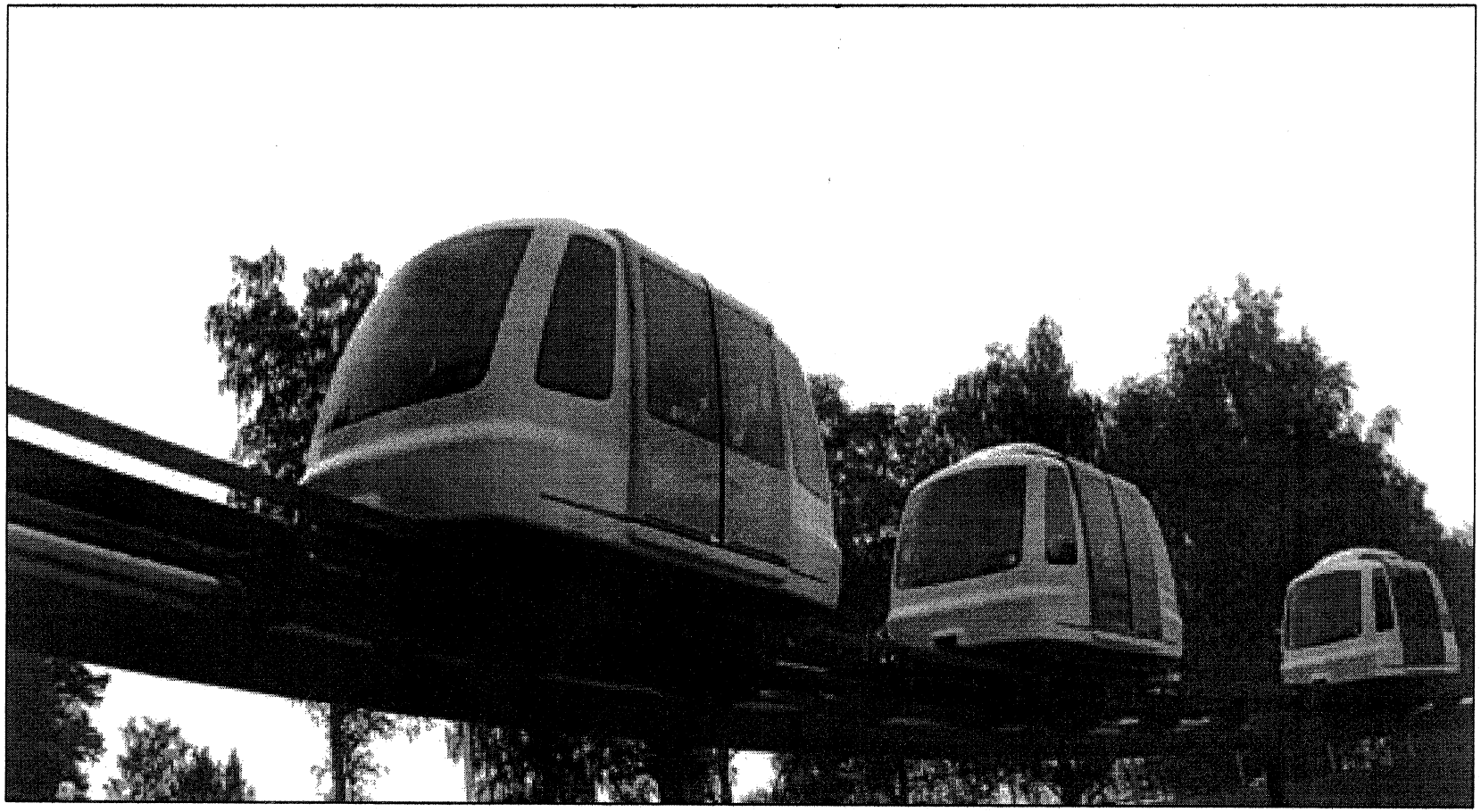
Personal Rapid Transit

for the

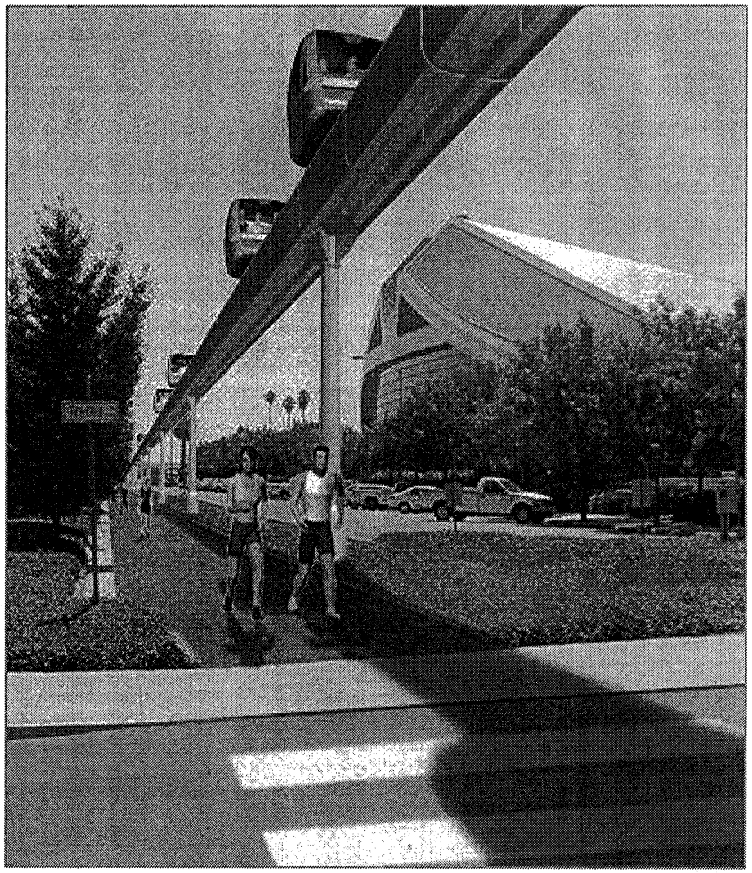
Beach Blvd./Edinger Ave. Revitalization/Corridor Study



PRT Strategies **Fountain Valley**

Personal Rapid Transit (PRT)

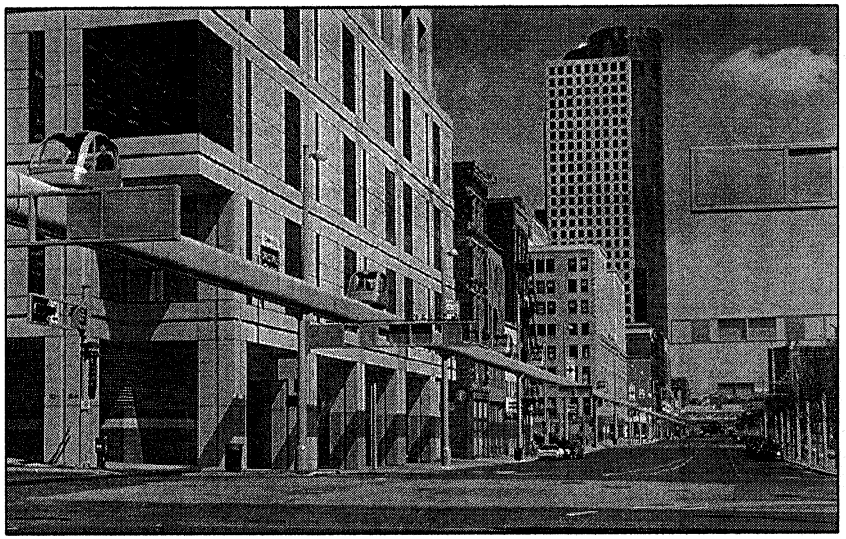
- On-demand, driverless
- Point-to-Point, no intermediate stops
- Private, unnecessary to share
- Offline stations
- Private 3 - 6 person vehicle
- All electric, emission-free
- ADA-compliant
- Minimal footprint
- 24/7/365 availability, no timetables
- Non-competitive with roadway
- Far less cost than LRT, HRT
- Eminent Domain issues unlikely
- Video monitored for safety, security

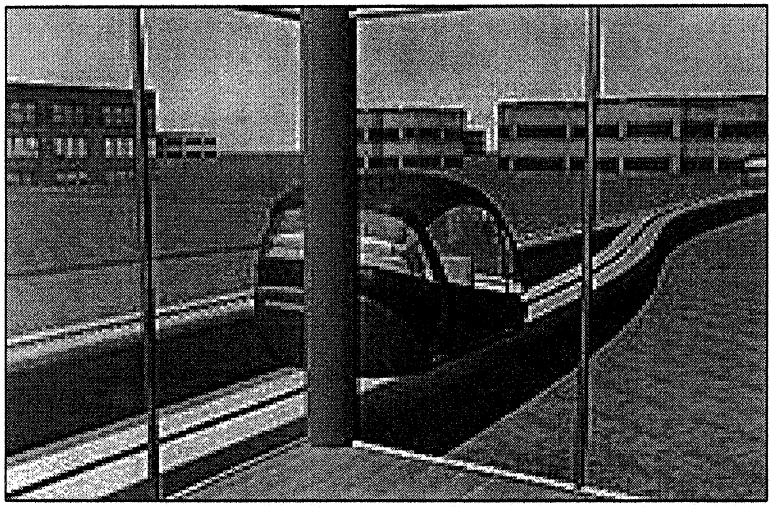


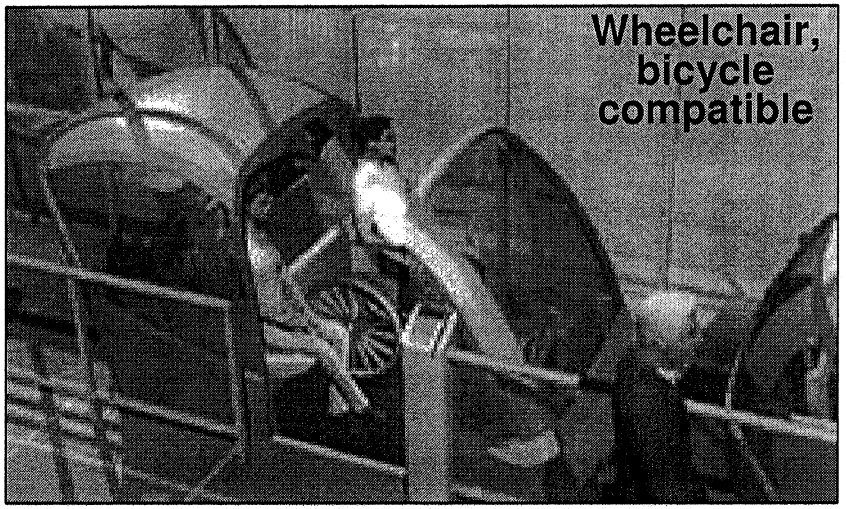
A 21st Century Green Solution

"Ready for primetime"
-- City of San Jose

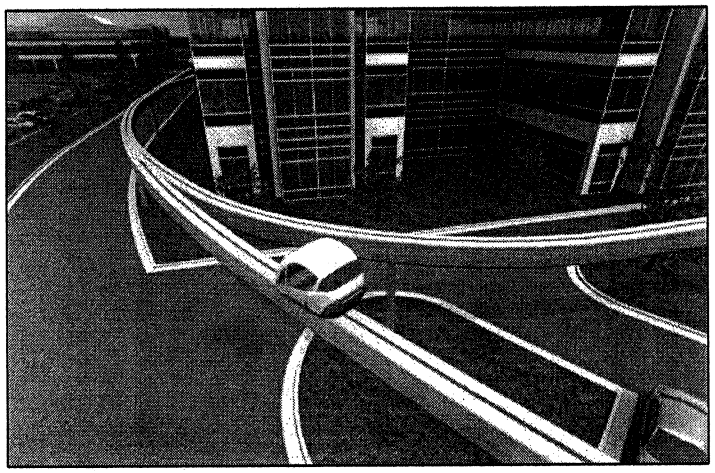
Buildable INTO Structures or ONTO Roofs

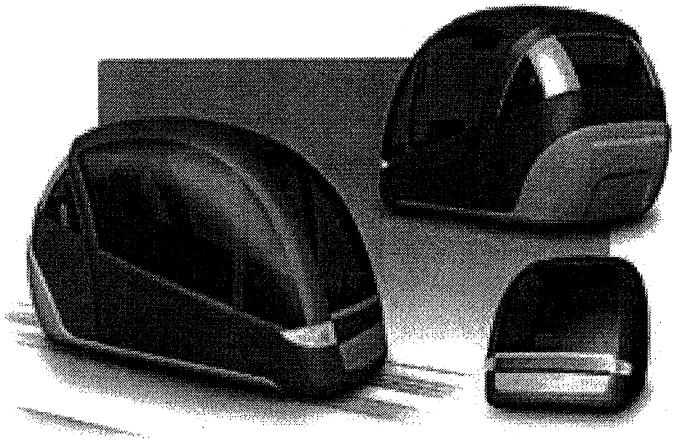




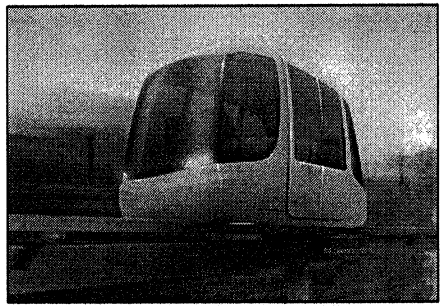


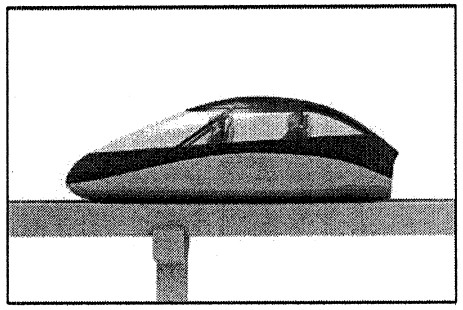
Small, Fast, High Capacity





- Network distributes, balances loads
- Engaged vehicles bypass offline stations
- No at-grade crossings
- Uncompetitive with street congestion
- Bypasses traffic signals
- Travels undelayed to destination
- Two second or less vehicle headways
- Immediate loading, unloading
- Guideway, vehicle capacity easily added
- Completely computerized
- Automatic billing, variable pricing maximizes use and revenue





PRT Strategy for Huntington Beach

- **Focus on a middle-class demographic -- shopper, commuter, office/medical worker and tourist population**
  - **Draw the non-transit dependent from private automobiles to private PRT vehicles**
  - **Create a HORIZONTAL ELEVATOR linking existing and new retail, office, hotel, medical sites**
    - Park once, visit many sites (department store analogy)
- **Develop, encourage and support Public/Private Partnerships**
  - **Focus on Transit Oriented Development with retailers, hoteliers, commercial and residential property developers**
    - TOD causes new development, redevelopment where stations are placed
      - Demonstrates City's commitment to overall plan
      - Attracts customers, clients to station locations
      - Offsets some parking requirements, reduces arterial congestion
  - **Allow High-Density Residential Developments @ Bella Terra (Edinger/Gothard) reduced accommodation for automobiles**
    - Zone for less parking, more revenue producing space where stations placed or built-in to structures
    - Accommodate indigenous commuter populations
      - Extend west to Boeing facilities
      - Extend to Metrolink using OCTA funds
    - Mitigate arterial traffic congestion, environmental impact
    - Build in alignments *off* the arterials, e.g. exploit UP Right-of-Way, alleys, flood channels, other city streets
  - **Attract Anaheim & Disney Resorts for tourist visits to beach, Pier, Downtown retailers and restaurants**
    - Use PRT to connect to ARTIC (Metrolink & Amtrak), Disneyland, Convention Center, 100+ Anaheim area hotels via Santa Ana River
    - Incent ancillary opportunities to visit Five Points, Bella Terra
    - Reverse the strategy – privately transport Hyatt/Hilton/Pacific City/Strand visitors to Anaheim
      - Extending hotel stays
      - Eventually connect to John Wayne